

| Clone Name     | Gene LocusID | Clone Name     | Gene LocusID | Clone Name     | Gene LocusID |
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| E3M10000022F08 | EFA201986    | E1M10000246A08 | ECO103372    | S1M10000012H05 | SAU800547    |
| E3M10000022C09 | EFA201999    | E1M10000246D09 | ECO103243    | S1M10000012A06 | SAU800546    |
| E3M10000022A11 | EFA201981    | E1M10000246D09 | ECO103244    | S1M10000012A06 | SAU800547    |
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| E3M10000022G12 | EFA202006    | E1M10000246F11 | ECO101259    | S1M10000012C06 | SAU801517    |
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| E3M10000023B02 | EFA202003    | E1M10000247E01 | ECO101855    | S1M10000012G06 | SAU801517    |
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| E3M10000023F02 | EFA201985    | E1M10000247E02 | ECO103264    | S1M10000012B07 | SAU802217    |
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| E3M10000024A03 | EFA205285    | E1M10000248A06 | ECO100068    | S1M10000012B11 | SAU802547    |
| E3M10000024A04 | EFA200326    | E1M10000248A06 | ECO100069    | S1M10000012C11 | SAU802249    |
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| E3M10000024A08 | EFA205285    | E1M10000248H08 | ECO103230    | S1M10000012H11 | SAU800191    |
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| E3M10000025B03 | EFA205255    | E1M10000249F03 | ECO100362    | S1M10000013A02 | SAU802059    |
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| E3M10000025C04 | EFA202003    | E1M10000249G05 | ECO102637    | S1M10000013E02 | SAU800720    |
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| E3M10000025B05 | EFA201976    | E1M10000249D06 | ECO103223    | S1M10000013B03 | SAU801018    |
| E3M10000025B05 | EFA201975    | E1M10000249A07 | ECO103376    | S1M10000013C03 | SAU801093    |
| E3M10000025C05 | EFA201977    | E1M10000249C07 | ECO103886    | S1M10000013F03 | SAU800548    |
| E3M10000025C05 | EFA203137    | E1M10000249B08 | ECO102553    | S1M10000013H03 | SAU600582    |
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| E3M10000025C08 | EFA200807    | E1M10000249H11 | ECO101382    | S1M10000013C05 | SAU800965    |
| E3M10000025E08 | EFA201974    | E1M10000250F02 | ECO103263    | S1M10000013G05 | SAU800771    |
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| E3M10000032A11 | EFA201041    | E1M10000264D11 | ECO104090    | S1M10000017D10 | SAU800931    |
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| E3M10000032E11 | EFA201984    | E1M10000264H11 | ECO204942    | S1M10000017B11 | SAU203433    |
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| E3M10000033H08 | EFA202001    | E1M10000268E04 | ECO101685    | S1M10000018C08 | SAU802194    |
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| E3M10000038E07 | EFA200454    | E1M10000316H04 | ECO103161    | S1M10000022E09 | SAU203732    |
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| E3M10000039C07 | EFA200309    | E1M10000279C10 | ECO103181    | S1M10000023A11 | SAU802249    |
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| E3M10000050D09 | EFA201878    | E1M10000288A06 | ECO102999    | S1M10000028C05 | SAU802206    |
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| E3M10000051G11 | EFA201982    | E1M10000290D06 | ECO103559    | S1M10000029C05 | SAU800543    |
| E3M10000051F12 | EFA200805    | E1M10000290D06 | ECO103560    | S1M10000029D05 | SAU801354    |
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| E3M10000052G04 | EFA200198    | E1M10000291C06 | ECO103461    | S1M10000029F11 | SAU802714    |
| E3M10000052C05 | EFA200454    | E1M10000291D06 | ECO100102    | S1M10000029A12 | SAU801631    |
| E3M10000052D05 | EFA201888    | E1M10000291E07 | ECO103866    | S1M10000029C12 | SAU802070    |
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| 1011-P20       | ECO100702    | E1M10000291F12 | ECO103243    | S1M10000030B03 | SAU802654    |
| 1053-37        | ECO101256    | E1M10000293B01 | ECO103885    | S1M10000030C03 | SAU800275    |
| 1053-37        | ECO202228    | E1M10000293B02 | ECO104093    | S1M10000030D03 | SAU801473    |
| 1010-C11       | ECO101324    | E1M10000293G02 | ECO103886    | S1M10000030G03 | SAU800542    |
| 1017-H1        | ECO304472    | E1M10000293A04 | ECO100402    | S1M10000030H03 | SAU800232    |
| 1067-16        | ECO102309    | E1M10000293B04 | ECO103886    | S1M10000030C04 | SAU800526    |
| 1083-27        | ECO102636    | E1M10000293A05 | ECO100095    | S1M10000030A05 | SAU800478    |
| 1065-12        | ECO102557    | E1M10000293E05 | ECO103223    | S1M10000030B05 | SAU801256    |
| 221-41         | ECO103884    | E1M10000293E05 | ECO103224    | S1M10000030C05 | SAU800526    |
| B17-6.O10      | ECO103884    | E1M10000293G05 | ECO103243    | S1M10000030D05 | SAU800759    |
| 910-B20        | ECO103884    | E1M10000293A06 | ECO101175    | S1M10000030D05 | SAU302793    |
| B18-2.N21      | ECO100148    | E1M10000293H06 | ECO102654    | S1M10000030G05 | SAU800776    |
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| 971-B20        | ECO103241    | E1M10000293C08 | ECO101844    | S1M10000030H05 | SAU800179    |
| D1-1.A15       | ECO103394    | E1M10000293E08 | ECO101939    | S1M10000030D06 | SAU800189    |
| 4-28.1         | ECO101485    | E1M10000293G08 | ECO103101    | S1M10000030E06 | SAU801257    |
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| PJMF55         | ECO103264    | E1M10000293H09 | ECO100095    | S1M10000030H07 | SAU800525    |
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| R1-15.A13      | ECO101995    | E1M10000293E11 | ECO103242    | S1M10000030F08 | SAU802231    |
| R1-19.H1       | ECO101104    | E1M10000293F11 | ECO104091    | S1M10000030F08 | SAU802230    |
| R1-55.M2       | ECO103884    | E1M10000293F11 | ECO104092    | S1M10000030G08 | SAU802250    |
| Z45-F11        | ECO103263    | E1M10000293C12 | ECO100170    | S1M10000030A09 | SAU801719    |
| Z8-B9          | ECO102033    | E1M10000293D12 | ECO103221    | S1M10000030B09 | SAU802654    |
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| 227-10         | ECO102562    | E1M10000295D01 | ECO103229    | S1M10000030D09 | SAU801139    |
| 709-F23        | ECO101506    | E1M10000295G01 | ECO103532    | S1M10000030F09 | SAU801904    |
| 801-C15        | ECO100488    | E1M10000295G01 | ECO103533    | S1M10000030G09 | SAU800542    |
| 801-C15        | ECO100490    | E1M10000295B02 | ECO101635    | S1M10000030H09 | SAU801644    |
| 801-C15        | ECO100491    | E1M10000295E02 | ECO103217    | S1M10000030A10 | SAU802309    |
| 801-H19        | ECO100488    | E1M10000295E02 | ECO103218    | S1M10000030A10 | SAU802308    |
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| 804-P6      | ECO102513    | E1M10000295A07 | ECO100712    | S1M10000030F10 | SAU800019    |
| 807-D20     | ECO100366    | E1M10000295B07 | ECO100179    | S1M10000030G10 | SAU800019    |
| 807-D20     | ECO100367    | E1M10000295B07 | ECO100180    | S1M10000030H10 | SAU802654    |
| B13-17.G8   | ECO101111    | E1M10000295C07 | ECO103224    | S1M10000030A11 | SAU800517    |
| B5-6.C8     | ECO101475    | E1M10000295C07 | ECO103225    | S1M10000030A11 | SAU202623    |
| B5-6.C8     | ECO101476    | E1M10000295C07 | ECO103226    | S1M10000030D11 | SAU800517    |
| B5-6.C8     | ECO201962    | E1M10000295D08 | ECO103225    | S1M10000030D11 | SAU202623    |
| B8-2.D9     | ECO103461    | E1M10000295D08 | ECO103226    | S1M10000030E11 | SAU802241    |
| B15-8.P13   | ECO101328    | E1M10000295F08 | ECO103160    | S1M10000030G11 | SAU800811    |
| B15-8.P13   | ECO101329    | E1M10000295G08 | ECO103217    | S1M10000030C12 | SAU801647    |
| T13-5.A2    | ECO103059    | E1M10000295G08 | ECO103218    | S1M10000030C12 | SAU801646    |
| T12-3.I11   | ECO102857    | E1M10000295B09 | ECO103236    | S1M10000030E12 | SAU800537    |
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| T24-15.G6   | ECO103059    | E1M10000295D10 | ECO103101    | S1M10000031B02 | SAU802247    |
| T24-17.C6   | ECO102857    | E1M10000295H10 | ECO103263    | S1M10000031E02 | SAU801912    |
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| 244.B12     | ECO101764    | E1M10000295F11 | ECO100954    | S1M10000031F02 | SAU802230    |
| 244.B12     | ECO101765    | E1M10000295G12 | ECO103494    | S1M10000031G02 | SAU802235    |
| 1042-J1     | ECO100702    | E1M10000312D11 | ECO104091    | S1M10000031G02 | SAU802234    |
| 1042-J1     | ECO100703    | E1M10000312D11 | ECO104092    | S1M10000031H02 | SAU801355    |
| 195.F5      | ECO102842    | E1M10000296B01 | ECO102304    | S1M10000031A03 | SAU802250    |
| 25.D5       | ECO103059    | E1M10000296C02 | ECO102466    | S1M10000031E03 | SAU801134    |
| 25.D6       | ECO103059    | E1M10000296C02 | ECO102467    | S1M10000031E03 | SAU801135    |
| 177.F3      | ECO102309    | E1M10000296D02 | ECO103235    | S1M10000031F03 | SAU802240    |
| 525.H11     | ECO102857    | E1M10000296D02 | ECO103236    | S1M10000031G03 | SAU801505    |
| 632.N2      | ECO104277    | E1M10000296D02 | ECO103237    | S1M10000031A04 | SAU801434    |
| 633.B7      | ECO103479    | E1M10000296H02 | ECO102556    | S1M10000031A04 | SAU302892    |
| 671.I20     | ECO103478    | E1M10000296C03 | ECO100150    | S1M10000031B04 | SAU800543    |
| 676.B12     | ECO103479    | E1M10000296C03 | ECO100151    | S1M10000031C04 | SAU800738    |
| 643.B19     | ECO100702    | E1M10000296E03 | ECO101086    | S1M10000031C04 | SAU800737    |
| 720.O16     | ECO103884    | E1M10000296H03 | ECO103227    | S1M10000031E04 | SAU800542    |
| 666.H12     | ECO103478    | E1M10000296H03 | ECO103228    | S1M10000031F04 | SAU801517    |
| 666.H12     | ECO103479    | E1M10000296D04 | ECO103237    | S1M10000031F04 | SAU801516    |
| 98.D4       | ECO103263    | E1M10000296G04 | ECO102144    | S1M10000031G04 | SAU302611    |
| 844.B21     | ECO102144    | E1M10000296F05 | ECO103886    | S1M10000031G04 | SAU302882    |
| P31-25-F3   | ECO101686    | E1M10000296G05 | ECO101467    | S1M10000031F05 | SAU800548    |
| P335-8.H8   | ECO101041    | E1M10000296H05 | ECO103094    | S1M10000031D06 | SAU801526    |
| P347.2      | ECO101086    | E1M10000296A06 | ECO100194    | S1M10000031G06 | SAU800548    |
| P31-11-J20  | ECO103228    | E1M10000296A06 | ECO100195    | S1M10000031H06 | SAU600582    |
| P336-14.F20 | ECO101370    | E1M10000296G07 | ECO102827    | S1M10000031C07 | SAU801760    |
| P31-27-M1   | ECO103423    | E1M10000296G07 | ECO102828    | S1M10000031D07 | SAU801181    |
| P338-4.M21  | ECO100139    | E1M10000296H07 | ECO103220    | S1M10000031E07 | SAU800016    |
| P334-8.L7   | ECO101256    | E1M10000296H07 | ECO103221    | S1M10000031A08 | SAU802365    |
| P31-2-E16   | ECO101686    | E1M10000296E08 | ECO100886    | S1M10000031D08 | SAU801790    |
| P335-3.J14  | ECO100523    | E1M10000296F08 | ECO103218    | S1M10000031E08 | SAU800547    |
| P334-5.H2   | ECO100139    | E1M10000296G08 | ECO103734    | S1M10000031F08 | SAU801264    |
| P31-33-N2   | ECO103241    | E1M10000296H08 | ECO100809    | S1M10000031C09 | SAU801193    |
| P332-11.C20 | ECO102827    | E1M10000296H08 | ECO100810    | S1M10000031D09 | SAU800019    |
| P332-11.C20 | ECO102828    | E1M10000296A09 | ECO100194    | S1M10000031G09 | SAU800006    |
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| P326-9.K2      | ECO103292    | E1M10000296E11 | ECO101684    | S1M10000031C10 | SAU802654    |
| P326-9.K2      | ECO103293    | E1M10000296F12 | ECO101684    | S1M10000031E10 | SAU800001    |
| P323-8.P1      | ECO101685    | E1M10000296G12 | ECO100095    | S1M10000031F10 | SAU800244    |
| P35-8          | ECO103692    | E1M10000298C01 | ECO101438    | S1M10000031G10 | SAU800962    |
| P36-13.E2      | ECO103059    | E1M10000298G01 | ECO104148    | S1M10000031A11 | SAU801741    |
| P38-1.G20      | ECO102227    | E1M10000298G01 | ECO104149    | S1M10000031B11 | SAU801908    |
| P327-50.M10    | ECO103242    | E1M10000298G02 | ECO102636    | S1M10000031C11 | SAU802152    |
| P327-50.M10    | ECO103243    | E1M10000298C03 | ECO103238    | S1M10000031F11 | SAU800312    |
| P328-8.D21     | ECO103240    | E1M10000298C03 | ECO103239    | S1M10000031G11 | SAU801234    |
| P328-8.D21     | ECO103241    | E1M10000298D03 | ECO103886    | S1M10000031H11 | SAU800962    |
| P328-20.P20    | ECO100541    | E1M10000298H03 | ECO103262    | S1M10000031B12 | SAU801621    |
| P33-1.C22      | ECO103227    | E1M10000298H03 | ECO103878    | S1M10000031C12 | SAU801741    |
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| P35-7          | ECO103928    | E1M10000298H04 | ECO100809    | S1M10000032C01 | SAU800548    |
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| X3S163-1       | ECO103423    | E1M10000298C05 | ECO103234    | S1M10000032F01 | SAU800524    |
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| X3S177-4       | ECO101161    | E1M10000298C05 | ECO103236    | S1M10000032H01 | SAU802111    |
| P342-3         | ECO102104    | E1M10000298D05 | ECO101539    | S1M10000032E02 | SAU801096    |
| SC21.1         | ECO103224    | E1M10000298D05 | ECO101540    | S1M10000032G02 | SAU800830    |
| SC17.1         | ECO102087    | E1M10000298C06 | ECO101844    | S1M10000032G02 | SAU800829    |
| SC13.1         | ECO101347    | E1M10000298D06 | ECO103886    | S1M10000032A03 | SAU802686    |
| SC13.1         | ECO101348    | E1M10000298G06 | ECO100096    | S1M10000032C03 | SAU800771    |
| MC9.6          | ECO102929    | E1M10000298B07 | ECO100095    | S1M10000032D03 | SAU801235    |
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| Z86-I21        | ECO103884    | E1M10000298G07 | ECO103234    | S1M10000032C04 | SAU800771    |
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| E1M10000187F11 | ECO103226    | P1M10000035A06 | PAE204246    | S1M10000037A12 | SAU802506    |
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| E1M10000199C09 | ECO100117    | P1M10000097G05 | PAE201962    | S1M10000040D09 | SAU200237    |
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| E1M10000206C09 | ECO101685    | P1M10000094H03 | PAE204740    | S1M10000042F11 | SAU801899    |
| E1M10000206E09 | ECO100886    | P1M10000094F04 | PAE204266    | S1M10000042H11 | SAU800453    |
| E1M10000206F09 | ECO103047    | P1M10000094F04 | PAE204265    | S1M10000042A12 | SAU800453    |
| E1M10000207E01 | ECO101872    | P1M10000094H04 | PAE204248    | S1M10000042B12 | SAU801899    |
| E1M10000207B03 | ECO100850    | P1M10000094H04 | PAE204249    | S1M10000042G12 | SAU801475    |
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| E1M10000207E05 | ECO100180    | P1M10000095C01 | PAE202486    | S1M10000043D01 | SAU801630    |
| E1M10000207G05 | ECO103883    | P1M10000095E04 | PAE204361    | S1M10000043F01 | SAU802234    |
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| E1M10000207H06 | ECO102553    | P1M10000102E05 | PAE200859    | S1M10000043H01 | SAU802234    |
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| E1M10000207F07 | ECO102556    | P1M10000103B05 | PAE204614    | S1M10000043A02 | SAU802481    |
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| E1M10000208A05 | ECO102158    | P1M10000104D11 | PAE201647    | S1M10000043H03 | SAU802227    |
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| E1M10000208B06 | ECO103466    | P1M10000105E02 | PAE200183    | S1M10000043D04 | SAU800543    |
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| E1M10000208F08 | ECO100201    | P1M10000105B06 | PAE200714    | S1M10000043H05 | SAU801007    |
| E1M10000208H10 | ECO103696    | P1M10000105C08 | PAE204922    | S1M10000043H05 | SAU801008    |
| E1M10000208H10 | ECO103697    | P1M10000105H08 | PAE200461    | S1M10000043A06 | SAU800962    |
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| E1M10000209B01 | ECO103116    | P1M10000110E01 | PAE200143    | S1M10000043H06 | SAU800116    |
| E1M10000209F02 | ECO101684    | P1M10000110F01 | PAE201672    | S1M10000043A07 | SAU800542    |
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| E1M10000209H02 | ECO202164    | P1M10000110B02 | PAE201949    | S1M10000043C07 | SAU801096    |
| E1M10000209D05 | ECO103242    | P1M10000110B03 | PAE202350    | S1M10000043E07 | SAU801193    |
| E1M10000209E05 | ECO100033    | P1M10000110F03 | PAE204580    | S1M10000043F07 | SAU800014    |
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| E1M10000209E11 | ECO102827    | P1M10000110B05 | PAE202397    | S1M10000043B09 | SAU801475    |
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| E1M10000210G02 | ECO103244    | P1M10000110F08 | PAE204036    | S1M10000043G09 | SAU102585    |
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| E1M10000210G05 | ECO100169    | P1M10000110E09 | PAE106754    | S1M10000043D10 | SAU802655    |
| E1M10000210E07 | ECO103233    | P1M10000110F09 | PAE200372    | S1M10000043E10 | SAU801259    |
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| E1M10000210B11 | ECO101324    | P1M10000098A02 | PAE201862    | S1M10000043H10 | SAU802658    |
| E1M10000211C02 | ECO101259    | P1M10000098B02 | PAE204119    | S1M10000043A11 | SAU801631    |
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| E1M10000211A05 | ECO103262    | P1M10000098E04 | PAE204285    | S1M10000043A12 | SAU801354    |
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| E1M10000211F05 | ECO101259    | P1M10000098A05 | PAE201101    | S1M10000043D12 | SAU800287    |
| E1M10000211C06 | ECO103559    | P1M10000098C05 | PAE203505    | S1M10000043D12 | SAU200106    |
| E1M10000211C08 | ECO100663    | P1M10000098G06 | PAE201449    | S1M10000043E12 | SAU800542    |
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| E1M10000212B03 | ECO103220    | P1M10000098C07 | PAE201694    | S1M10000044B01 | SAU802183    |
| E1M10000212B03 | ECO103221    | P1M10000098F07 | PAE200423    | S1M10000044D01 | SAU802250    |
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| E1M10000213A05 | ECO100095    | P1M10000099E10 | PAE203171    | S1M10000044C04 | SAU802238    |
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| E1M10000213A08 | ECO100663    | P1M10000106F03 | PAE203413    | S1M10000044H05 | SAU801738    |
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| E1M10000213G09 | ECO101203    | P1M10000107H02 | PAE203391    | S1M10000044D06 | SAU801616    |
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| E1M10000230A03 | ECO100501    | P1M10000109E03 | PAE205383    | S1M10000044H09 | SAU801355    |
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| E1M10000215F03 | ECO102294    | S4M10000022E12 | STM102090    | S1M10000045H11 | SAU800517    |
| E1M10000215F03 | ECO102295    | S4M10000024G01 | STM103802    | S1M10000045A12 | SAU801593    |
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| E1M10000215A07 | ECO104092    | S4M10000025E02 | STM102366    | S1M10000045F12 | SAU802225    |
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| E1M10000215H07 | ECO103244    | S4M10000025F12 | STM103805    | S1M10000046E01 | SAU801733    |
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| E1M10000225F04 | ECO101583    | S1M10000003B12 | SAU302892    | S1M10000048C01 | SAU800753    |
| E1M10000225A06 | ECO103218    | S1M10000003C12 | SAU800548    | S1M10000048D01 | SAU802654    |
| E1M10000225B06 | ECO101259    | S1M10000003F12 | SAU801621    | S1M10000048G01 | SAU800363    |
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| E1M10000225E09 | ECO102878    | S1M10000004D01 | SAU801615    | S1M10000048B02 | SAU801740    |
| E1M10000225H09 | ECO101953    | S1M10000004F01 | SAU800966    | S1M10000048C02 | SAU800490    |
| E1M10000225H09 | ECO101989    | S1M10000004G01 | SAU802496    | S1M10000048D02 | SAU802548    |
| E1M10000225F10 | ECO101684    | S1M10000004C02 | SAU802496    | S1M10000048D02 | SAU104011    |
| E1M10000225D12 | ECO102966    | S1M10000004F02 | SAU800546    | S1M10000048E02 | SAU800753    |
| E1M10000225D12 | ECO102967    | S1M10000004B03 | SAU800257    | S1M10000048F02 | SAU802107    |
| E1M10000225G12 | ECO101128    | S1M10000004B03 | SAU800258    | S1M10000048G02 | SAU800019    |
| E1M10000226E01 | ECO100469    | S1M10000004D03 | SAU800187    | S1M10000048G02 | SAU800020    |
| E1M10000226B02 | ECO100683    | S1M10000004E03 | SAU800153    | S1M10000048H02 | SAU800547    |
| E1M10000226B02 | ECO103405    | S1M10000004G03 | SAU800016    | S1M10000048A03 | SAU801630    |
| E1M10000226B02 | ECO103515    | S1M10000004A04 | SAU802655    | S1M10000048B03 | SAU801184    |
| E1M10000226B02 | ECO204900    | S1M10000004B04 | SAU801760    | S1M10000048C03 | SAU802586    |
| E1M10000226C02 | ECO103030    | S1M10000004D04 | SAU802224    | S1M10000048C03 | SAU802585    |
| E1M10000226F02 | ECO102999    | S1M10000004D04 | SAU802223    | S1M10000048E03 | SAU802586    |
| E1M10000226D03 | ECO103160    | S1M10000004E04 | SAU802247    | S1M10000048E03 | SAU802585    |
| E1M10000226G03 | ECO103696    | S1M10000004G05 | SAU800548    | S1M10000048F03 | SAU802226    |
| E1M10000226F04 | ECO102508    | S1M10000004A06 | SAU801644    | S1M10000048G03 | SAU800543    |
| E1M10000226H04 | ECO100713    | S1M10000004C06 | SAU802714    | S1M10000048H03 | SAU802217    |
| E1M10000226H06 | ECO103848    | S1M10000004D06 | SAU800006    | S1M10000048E04 | SAU801183    |
| E1M10000226A08 | ECO104132    | S1M10000004E06 | SAU802240    | S1M10000048G04 | SAU802247    |
| E1M10000226D08 | ECO101753    | S1M10000004F06 | SAU800152    | S1M10000048H04 | SAU802586    |
| E1M10000226D09 | ECO100430    | S1M10000004A07 | SAU802503    | S1M10000048H04 | SAU802585    |
| E1M10000226D09 | ECO100431    | S1M10000004D07 | SAU802496    | S1M10000048A05 | SAU801263    |
| E1M10000226B10 | ECO102113    | S1M10000004E07 | SAU802177    | S1M10000048B05 | SAU800753    |
| E1M10000226D10 | ECO101623    | S1M10000004E07 | SAU802176    | S1M10000048C05 | SAU801891    |
| E1M10000226E10 | ECO102714    | S1M10000004F07 | SAU801683    | S1M10000048F05 | SAU801184    |
| E1M10000226G11 | ECO103244    | S1M10000004G07 | SAU801644    | S1M10000048G05 | SAU800542    |
| E1M10000226B12 | ECO101916    | S1M10000004G07 | SAU801643    | S1M10000048H05 | SAU800546    |
| E1M10000226F12 | ECO100240    | S1M10000004B08 | SAU801346    | S1M10000048A06 | SAU800546    |
| E1M10000227E03 | ECO100975    | S1M10000004B08 | SAU200535    | S1M10000048B06 | SAU801184    |
| E1M10000227E03 | ECO201249    | S1M10000004C08 | SAU802503    | S1M10000048C06 | SAU801670    |
| E1M10000227G03 | ECO101458    | S1M10000004D08 | SAU800517    | S1M10000048C06 | SAU801669    |
| E1M10000227G03 | ECO101459    | S1M10000004D08 | SAU202623    | S1M10000048E06 | SAU801186    |
| E1M10000227E04 | ECO104148    | S1M10000004F08 | SAU802224    | S1M10000048A07 | SAU801253    |
| E1M10000227E04 | ECO104149    | S1M10000004F08 | SAU802223    | S1M10000048C07 | SAU800018    |
| E1M10000227H04 | ECO100844    | S1M10000004B09 | SAU802177    | S1M10000048E07 | SAU801919    |
| E1M10000227C05 | ECO104164    | S1M10000004B09 | SAU802176    | S1M10000048F07 | SAU801831    |
| E1M10000227C05 | ECO104165    | S1M10000004C09 | SAU802496    | S1M10000048G07 | SAU800520    |
| E1M10000227C07 | ECO101423    | S1M10000004F09 | SAU802496    | S1M10000048G07 | SAU800519    |
| E1M10000227G07 | ECO103885    | S1M10000004G09 | SAU801264    | S1M10000048H07 | SAU800546    |
| E1M10000227B08 | ECO102736    | S1M10000004C10 | SAU801742    | S1M10000048B08 | SAU800018    |
| E1M10000227B08 | ECO102737    | S1M10000004C10 | SAU801741    | S1M10000048C08 | SAU800453    |
| E1M10000227D08 | ECO103911    | S1M10000004D10 | SAU801618    | S1M10000048D08 | SAU300619    |
| E1M10000227B09 | ECO102736    | S1M10000004A11 | SAU801475    | S1M10000048E08 | SAU802224    |
| E1M10000227B09 | ECO102737    | S1M10000004B11 | SAU801113    | S1M10000048F08 | SAU800546    |
| E1M10000227D09 | ECO103911    | S1M10000004C11 | SAU800700    | S1M10000048H08 | SAU802244    |
| E1M10000227E11 | ECO103723    | S1M10000004A12 | SAU801208    | S1M10000048A09 | SAU800547    |
| E1M10000227E11 | ECO103724    | S1M10000004C12 | SAU800519    | S1M10000048C09 | SAU800548    |
| E1M10000227C12 | ECO100394    | S1M10000004D12 | SAU801183    | S1M10000048D09 | SAU802244    |
| E1M10000227C12 | ECO100395    | S1M10000004D12 | SAU801184    | S1M10000048E09 | SAU802090    |
| E1M10000227D12 | ECO104144    | S1M10000004E12 | SAU800528    | S1M10000048F09 | SAU802238    |
| E1M10000232H02 | ECO103235    | S1M10000004F12 | SAU801900    | S1M10000048H09 | SAU800546    |

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| E1M10000232A03 | ECO103885    | S1M10000005A01 | SAU802496    | S1M10000048B10 | SAU800547    |
| E1M10000232B03 | ECO101324    | S1M10000005C01 | SAU802496    | S1M10000048C10 | SAU800367    |
| E1M10000232H03 | ECO103097    | S1M10000005E01 | SAU800996    | S1M10000048D10 | SAU802590    |
| E1M10000232C07 | ECO100170    | S1M10000005B02 | SAU802243    | S1M10000048E10 | SAU802590    |
| E1M10000232F07 | ECO103797    | S1M10000005D02 | SAU800519    | S1M10000048G10 | SAU802238    |
| E1M10000232F07 | ECO103798    | S1M10000005E02 | SAU802655    | S1M10000048H10 | SAU802240    |
| E1M10000232G07 | ECO104010    | S1M10000005F02 | SAU801644    | S1M10000048A11 | SAU802224    |
| E1M10000232A08 | ECO100850    | S1M10000005F02 | SAU801643    | S1M10000048C11 | SAU802217    |
| E1M10000232G08 | ECO100875    | S1M10000005A03 | SAU802310    | S1M10000048D11 | SAU802090    |
| E1M10000232G12 | ECO102636    | S1M10000005D03 | SAU800548    | S1M10000048F11 | SAU802496    |
| E1M10000233C01 | ECO103886    | S1M10000005F03 | SAU802262    | S1M10000048G11 | SAU801186    |
| E1M10000233A03 | ECO100784    | S1M10000005B04 | SAU801183    | S1M10000048H11 | SAU801139    |
| E1M10000233B03 | ECO100784    | S1M10000005D04 | SAU801183    | S1M10000048A12 | SAU801139    |
| E1M10000233D03 | ECO100118    | S1M10000005D04 | SAU801184    | S1M10000048B12 | SAU802502    |
| E1M10000233H03 | ECO103238    | S1M10000005F04 | SAU800363    | S1M10000048D12 | SAU800250    |
| E1M10000233H03 | ECO103239    | S1M10000005F04 | SAU800362    | S1M10000048D12 | SAU800249    |
| E1M10000233C04 | ECO102309    | S1M10000005F04 | SAU800361    | S1M10000048G12 | SAU802251    |
| E1M10000233G04 | ECO101185    | S1M10000005C05 | SAU801264    |                |              |
| E1M10000233A05 | ECO102553    | S1M10000005D05 | SAU801644    |                |              |



Table IC provides a cross reference between PathoSeq Gene Loci listed in Table IB and the SEQ ID NOs. of the corresponding PathoSeq polypeptides and the SEQ ID NOs. of the nucleic acids which encode them. The Gene Locus IDs provided in Table IC each comprise a nine digit alpha-numeric identifier that can be used to determine the organism from which each Gene Locus and corresponding SEQ ID NOs. were identified. Specifically, the first letter of the Gene Locus ID corresponds to the first letter of the genus name of the organism described herein from which the Gene Locus was identified and the second and third letters of the Gene Locus ID correspond to the first two letters of the species name of this organism. For example, the identifier EFA205257 describes a gene locus identified from *Enterococcus faecalis*. In those instances where the three letter identifier is the same for different organisms, the exact identity of the organism which corresponds to the Gene Locus ID can be determined by referring to the organism designation in the sequence listing for the coding nucleic acid or polypeptide SEQ ID NO. that corresponds to the particular Gene Locus ID.

TABLE IC

| DNA SeqID | Protein SeqID | Gene LocusID | DNA SeqID | Protein SeqID | Gene LocusID | DNA SeqID | Protein SeqID | Gene LocusID |
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| 6215      | 42399         | EFA205258    | 18277     | 54461         | CJU100848    | 30338     | 66522         | PAE203654    |
| 6216      | 42400         | EFA205225    | 18278     | 54462         | CJU100855    | 30339     | 66523         | PAE203656    |
| 6217      | 42401         | EFA201977    | 18279     | 54463         | CJU100856    | 30340     | 66524         | PAE203658    |
| 6218      | 42402         | EFA203137    | 18280     | 54464         | CJU100859    | 30341     | 66525         | PAE203668    |
| 6219      | 42403         | EFA200840    | 18281     | 54465         | CJU100860    | 30342     | 66526         | PAE203670    |
| 6220      | 42404         | EFA202003    | 18282     | 54466         | CJU100861    | 30343     | 66527         | PAE203672    |
| 6221      | 42405         | EFA200807    | 18283     | 54467         | CJU100862    | 30344     | 66528         | PAE203677    |
| 6222      | 42406         | EFA200811    | 18284     | 54468         | CJU100863    | 30345     | 66529         | PAE203684    |
| 6223      | 42407         | EFA201987    | 18285     | 54469         | CJU100866    | 30346     | 66530         | PAE203691    |
| 6224      | 42408         | EFA201980    | 18286     | 54470         | CJU100870    | 30347     | 66531         | PAE203698    |
| 6225      | 42409         | EFA201981    | 18287     | 54471         | CJU100871    | 30348     | 66532         | PAE203722    |
| 6226      | 42410         | EFA205229    | 18288     | 54472         | CJU100872    | 30349     | 66533         | PAE203732    |
| 6227      | 42411         | EFA201028    | 18289     | 54473         | CJU100885    | 30350     | 66534         | PAE203735    |
| 6228      | 42412         | EFA201993    | 18290     | 54474         | CJU100886    | 30351     | 66535         | PAE203739    |
| 6229      | 42413         | EFA201974    | 18291     | 54475         | CJU100888    | 30352     | 66536         | PAE203740    |
| 6230      | 42414         | EFA201975    | 18292     | 54476         | CJU100890    | 30353     | 66537         | PAE203741    |
| 6231      | 42415         | EFA202001    | 18293     | 54477         | CJU100891    | 30354     | 66538         | PAE203742    |
| 6232      | 42416         | EFA200839    | 18294     | 54478         | CJU100896    | 30355     | 66539         | PAE203743    |
| 6233      | 42417         | EFA201985    | 18295     | 54479         | CJU100903    | 30356     | 66540         | PAE203744    |
| 6234      | 42418         | EFA201984    | 18296     | 54480         | CJU100923    | 30357     | 66541         | PAE203751    |
| 6235      | 42419         | EFA202953    | 18297     | 54481         | CJU100925    | 30358     | 66542         | PAE203754    |
| 6236      | 42420         | EFA202022    | 18298     | 54482         | CJU100929    | 30359     | 66543         | PAE203755    |
| 6237      | 42421         | EFA202028    | 18299     | 54483         | CJU100938    | 30360     | 66544         | PAE203757    |
| 6238      | 42422         | EFA202536    | 18300     | 54484         | CJU100944    | 30361     | 66545         | PAE203758    |
| 6239      | 42423         | EFA200412    | 18301     | 54485         | CJU100951    | 30362     | 66546         | PAE203760    |
| 6240      | 42424         | EFA201999    | 18302     | 54486         | CJU100955    | 30363     | 66547         | PAE203766    |
| 6241      | 42425         | EFA201997    | 18303     | 54487         | CJU100961    | 30364     | 66548         | PAE203774    |
| 6242      | 42426         | EFA200624    | 18304     | 54488         | CJU100965    | 30365     | 66549         | PAE203796    |
| 6243      | 42427         | EFA201983    | 18305     | 54489         | CJU100966    | 30366     | 66550         | PAE203797    |
| 6244      | 42428         | EFA200812    | 18306     | 54490         | CJU100967    | 30367     | 66551         | PAE203799    |
| 6245      | 42429         | EFA200660    | 18307     | 54491         | CJU100970    | 30368     | 66552         | PAE203800    |
| 6246      | 42430         | EFA200661    | 18308     | 54492         | CJU100980    | 30369     | 66553         | PAE203801    |
| 6247      | 42431         | EFA202276    | 18309     | 54493         | CJU100982    | 30370     | 66554         | PAE203810    |
| 6248      | 42432         | EFA201982    | 18310     | 54494         | CJU100983    | 30371     | 66555         | PAE203812    |
| 6249      | 42433         | EFA202214    | 18311     | 54495         | CJU100987    | 30372     | 66556         | PAE203813    |
| 6250      | 42434         | EFA202216    | 18312     | 54496         | CJU100989    | 30373     | 66557         | PAE203820    |
| 6251      | 42435         | EFA200360    | 18313     | 54497         | CJU100993    | 30374     | 66558         | PAE203821    |
| 6252      | 42436         | EFA200766    | 18314     | 54498         | CJU100996    | 30375     | 66559         | PAE203828    |
| 6253      | 42437         | EFA200805    | 18315     | 54499         | CJU100997    | 30376     | 66560         | PAE203829    |
| 6254      | 42438         | EFA201637    | 18316     | 54500         | CJU100998    | 30377     | 66561         | PAE203831    |
| 6255      | 42439         | EFA201986    | 18317     | 54501         | CJU100999    | 30378     | 66562         | PAE203850    |
| 6256      | 42440         | EFA205255    | 18318     | 54502         | CJU101006    | 30379     | 66563         | PAE203869    |
| 6257      | 42441         | EFA200495    | 18319     | 54503         | CJU101007    | 30380     | 66564         | PAE203871    |
| 6258      | 42442         | EFA104836    | 18320     | 54504         | CJU101011    | 30381     | 66565         | PAE203872    |
| 6259      | 42443         | EFA201976    | 18321     | 54505         | CJU101017    | 30382     | 66566         | PAE203887    |
| 6260      | 42444         | EFA201523    | 18322     | 54506         | CJU101021    | 30383     | 66567         | PAE203888    |
| 6261      | 42445         | EFA202012    | 18323     | 54507         | CJU101022    | 30384     | 66568         | PAE203892    |
| 6262      | 42446         | EFA202007    | 18324     | 54508         | CJU101027    | 30385     | 66569         | PAE203897    |
| 6263      | 42447         | EFA200307    | 18325     | 54509         | CJU101028    | 30386     | 66570         | PAE203898    |
| 6264      | 42448         | EFA201888    | 18326     | 54510         | CJU101029    | 30387     | 66571         | PAE203900    |
| 6265      | 42449         | EFA205285    | 18327     | 54511         | CJU101031    | 30388     | 66572         | PAE203911    |

| WO 02/077183 |               |              |           |               |              | PCT/US02/09107 |               |              |
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| DNA SeqID    | Protein SeqID | Gene LocusID | DNA SeqID | Protein SeqID | Gene LocusID | DNA SeqID      | Protein SeqID | Gene LocusID |
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| 6267         | 42451         | EFA201204    | 18329     | 54513         | CJU101044    | 30390          | 66574         | PAE203917    |
| 6268         | 42452         | EFA201611    | 18330     | 54514         | CJU101046    | 30391          | 66575         | PAE203920    |
| 6269         | 42453         | EFA201946    | 18331     | 54515         | CJU101050    | 30392          | 66576         | PAE203943    |
| 6270         | 42454         | EFA201512    | 18332     | 54516         | CJU101054    | 30393          | 66577         | PAE203958    |
| 6271         | 42455         | EFA205288    | 18333     | 54517         | CJU101059    | 30394          | 66578         | PAE203967    |
| 6272         | 42456         | EFA203140    | 18334     | 54518         | CJU101065    | 30395          | 66579         | PAE203973    |
| 6273         | 42457         | EFA200544    | 18335     | 54519         | CJU101068    | 30396          | 66580         | PAE203980    |
| 6274         | 42458         | EFA203904    | 18336     | 54520         | CJU101072    | 30397          | 66581         | PAE203984    |
| 6275         | 42459         | EFA202006    | 18337     | 54521         | CJU101074    | 30398          | 66582         | PAE203993    |
| 6276         | 42460         | EFA202298    | 18338     | 54522         | CJU101075    | 30399          | 66583         | PAE204001    |
| 6277         | 42461         | EFA200326    | 18339     | 54523         | CJU101080    | 30400          | 66584         | PAE204004    |
| 6278         | 42462         | EFA200662    | 18340     | 54524         | CJU101081    | 30401          | 66585         | PAE204008    |
| 6279         | 42463         | EFA202217    | 18341     | 54525         | CJU101082    | 30402          | 66586         | PAE204019    |
| 6280         | 42464         | EFA201869    | 18342     | 54526         | CJU101094    | 30403          | 66587         | PAE204027    |
| 6281         | 42465         | EFA203598    | 18343     | 54527         | CJU101100    | 30404          | 66588         | PAE204031    |
| 6282         | 42466         | EFA200894    | 18344     | 54528         | CJU101103    | 30405          | 66589         | PAE204040    |
| 6283         | 42467         | EFA200613    | 18345     | 54529         | CJU101106    | 30406          | 66590         | PAE204042    |
| 6284         | 42468         | EFA202166    | 18346     | 54530         | CJU101107    | 30407          | 66591         | PAE204048    |
| 6285         | 42469         | EFA202168    | 18347     | 54531         | CJU101113    | 30408          | 66592         | PAE204049    |
| 6286         | 42470         | EFA201087    | 18348     | 54532         | CJU101117    | 30409          | 66593         | PAE204050    |
| 6287         | 42471         | EFA201084    | 18349     | 54533         | CJU101119    | 30410          | 66594         | PAE204051    |
| 6288         | 42472         | EFA201883    | 18350     | 54534         | CJU101120    | 30411          | 66595         | PAE204052    |
| 6289         | 42473         | EFA201905    | 18351     | 54535         | CJU101121    | 30412          | 66596         | PAE204053    |
| 6290         | 42474         | EFA202015    | 18352     | 54536         | CJU101122    | 30413          | 66597         | PAE204077    |
| 6291         | 42475         | EFA202274    | 18353     | 54537         | CJU101125    | 30414          | 66598         | PAE204079    |
| 6292         | 42476         | EFA200916    | 18354     | 54538         | CJU101127    | 30415          | 66599         | PAE204081    |
| 6293         | 42477         | EFA200179    | 18355     | 54539         | CJU101129    | 30416          | 66600         | PAE204082    |
| 6294         | 42478         | EFA200358    | 18356     | 54540         | CJU101130    | 30417          | 66601         | PAE204094    |
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| WO 02/077183 |               |              |           |               |              | PCT/US02/09107 |               |              |
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| 10137        | 46321         | BAN108234    | 22199     | 58383         | HIN100983    | 34260     | 70444         | SEP100719    |                |
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| 10140        | 46324         | BAN108248    | 22202     | 58386         | HIN100998    | 34263     | 70447         | SEP101087    |                |
| 10141        | 46325         | BAN108260    | 22203     | 58387         | HIN101001    | 34264     | 70448         | SEP101306    |                |
| 10142        | 46326         | BAN108269    | 22204     | 58388         | HIN101002    | 34265     | 70449         | SEP102450    |                |
| 10143        | 46327         | BAN108271    | 22205     | 58389         | HIN101007    | 34266     | 70450         | SEP102493    |                |
| 10144        | 46328         | BAN108277    | 22206     | 58390         | HIN101025    | 34267     | 70451         | SEP102632    |                |
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| 10153        | 46337         | BAN108403    | 22215     | 58399         | HIN101054    | 34276     | 70460         | SEP200047    |                |
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| 10155        | 46339         | BAN108415    | 22217     | 58401         | HIN101066    | 34278     | 70462         | SEP200052    |                |
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| 10158        | 46342         | BAN108451    | 22220     | 58404         | HIN101075    | 34281     | 70465         | SEP200060    |                |
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| 10161        | 46345         | BAN108468    | 22223     | 58407         | HIN101084    | 34284     | 70468         | SEP200071    |                |
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| 10178        | 46362         | BAN108606    | 22240     | 58424         | HIN101114    | 34301     | 70485         | SEP200137    |                |               |              |
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| 10180        | 46364         | BAN108621    | 22242     | 58426         | HIN101116    | 34303     | 70487         | SEP200140    |                |               |              |
| 10181        | 46365         | BAN108626    | 22243     | 58427         | HIN101117    | 34304     | 70488         | SEP200141    |                |               |              |
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| 10185        | 46369         | BAN108675    | 22247     | 58431         | HIN101129    | 34308     | 70492         | SEP200154    |                |               |              |
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| 10188        | 46372         | BAN108690    | 22250     | 58434         | HIN101151    | 34311     | 70495         | SEP200162    |                |               |              |
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| 10216        | 46400         | BAN108902    | 22278     | 58462         | HIN101225    | 34339     | 70523         | SEP200229    |                |               |              |
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| 10465        | 46649         | BAN110882    | 22527     | 58711         | HPY100434    | 34588     | 70772         | SEP201038    |                |               |              |
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| 10467        | 46651         | BAN110897    | 22529     | 58713         | HPY100472    | 34590     | 70774         | SEP201054    |                |               |              |
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| 10613        | 46797         | BAN112108    | 22675     | 58859         | HPY101009    | 34736     | 70920         | SEP201527    |                |               |              |
| 10614        | 46798         | BAN112117    | 22676     | 58860         | HPY101019    | 34737     | 70921         | SEP201528    |                |               |              |
| 10615        | 46799         | BAN112122    | 22677     | 58861         | HPY101022    | 34738     | 70922         | SEP201529    |                |               |              |
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| 10618        | 46802         | BAN112137    | 22680     | 58864         | HPY101031    | 34741     | 70925         | SEP201532    |                |               |              |
| 10619        | 46803         | BAN112139    | 22681     | 58865         | HPY101033    | 34742     | 70926         | SEP201533    |                |               |              |
| 10620        | 46804         | BAN112147    | 22682     | 58866         | HPY101035    | 34743     | 70927         | SEP201534    |                |               |              |
| 10621        | 46805         | BAN112148    | 22683     | 58867         | HPY101041    | 34744     | 70928         | SEP201537    |                |               |              |
| 10622        | 46806         | BAN112149    | 22684     | 58868         | HPY101045    | 34745     | 70929         | SEP201538    |                |               |              |
| 10623        | 46807         | BAN112161    | 22685     | 58869         | HPY101046    | 34746     | 70930         | SEP201540    |                |               |              |
| 10624        | 46808         | BAN112162    | 22686     | 58870         | HPY101050    | 34747     | 70931         | SEP201542    |                |               |              |
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| 10626        | 46810         | BAN112177    | 22688     | 58872         | HPY101055    | 34749     | 70933         | SEP201545    |                |               |              |
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| 10642        | 46826         | BAN112271    | 22704     | 58888         | HPY101133    | 34765     | 70949         | SEP201568    |                |               |              |
| 10643        | 46827         | BAN112277    | 22705     | 58889         | HPY101134    | 34766     | 70950         | SEP201569    |                |               |              |
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| 10656        | 46840         | BAN112395    | 22718     | 58902         | HPY101173    | 34779     | 70963         | SEP201589    |                |               |              |
| 10657        | 46841         | BAN112396    | 22719     | 58903         | HPY101176    | 34780     | 70964         | SEP201590    |                |               |              |
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| 10659        | 46843         | BAN112425    | 22721     | 58905         | HPY101179    | 34782     | 70966         | SEP201596    |                |               |              |
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| 10697        | 46881         | BAN112732    | 22759     | 58943         | HPY101275    | 34820     | 71004         | SEP201703    |                |               |              |
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| 10704        | 46888         | BAN112806    | 22766     | 58950         | HPY101283    | 34827     | 71011         | SEP201738    |                |               |              |
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| 10719        | 46903         | BAN113013    | 22781     | 58965         | HPY101298    | 34842     | 71026         | SEP201787    |                |               |              |
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| 10747        | 46931         | BAN113237    | 22809     | 58993         | HPY101406    | 34870     | 71054         | SEP201845    |                |
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| 11940        | 48124         | BCE113462    | 24002          | 60186         | KPN306069    | 36063     | 72247         | SMU100669    |
| 11941        | 48125         | BCE113475    | 24003          | 60187         | KPN306077    | 36064     | 72248         | SMU100672    |
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